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2292 Faraday Avenue
Carlsbad, CA 92008**Facsimile Information**Sender's Name: **Pamela D. Grooms**
Isis Ref. No.: **ISIS-2960**
Date **January 7, 2004**Serial Number: **09/067,638**
Filing Date: **April 28, 1998**
Art Unit: **1631**

Please deliver the following information to:

Name: **Commissioner for Patents**Company: **USPTO**Fax No.: **(703) 872-9306**Re: **Revocation of Power of Attorney with New Power of Attorney**We are transmitting 19 page(s), including this cover sheet**Comments:****PLEASE DELIVER THE FOLLOWING ITEMS TO THE FILE:**

1. Transmittal
2. Revocation of Power of Attorney with New Power of Attorney
3. Statement Under 37 CFR 3.73(b)
4. Copy of Recorded Assignment

This Fax is from

Name: **Pamela Grooms**Fax # **(760) 603-3820** Telephone # **(760) 603-2415****CONFIDENTIALITY NOTICE**

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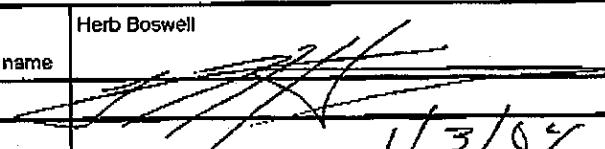
PTO/SB/21 (08-03)

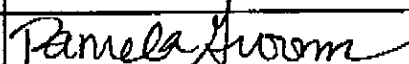
Approved for use through 08/30/2003. OMB 0851-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/067,638	
	Filing Date	April 28, 1998	
	First Named Inventor	Lex M. Cowser	
	Art Unit	1631	
	Examiner Name	Ardin H. Marschel	
Total Number of Pages in This Submission	18	Attorney Docket Number	ISIS-2960

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input checked="" type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below): _____
Remarks Revocation of Power of Attorney with Statement Under 37 CFR 3.73(b)		
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT		
Firm or Individual name	Herb Boswell	
Signature		
Date	1/3/04	

CERTIFICATE OF TRANSMISSION/MAILING		
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.		
Typed or printed name	Pamela Grooms	
Signature		Date 1/7/2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/82 (09-03)

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**REVOCATION OF POWER OF
ATTORNEY WITH
NEW POWER OF ATTORNEY
AND
CHANGE OF CORRESPONDENCE ADDRESS**

Application Number	09/067,638
Filing Date	April 28, 1998
First Named Inventor	Lex M. Cowser
Art Unit	1631
Examiner Name	Ardin H. Marschel
Attorney Docket Number	ISIS-2960

I hereby revoke all previous powers of attorney given in the above-identified application.

☐ A Power of Attorney is submitted herewith.

OR

☒ I hereby appoint the practitioners associated with the Customer Number:

35807

☒ Please change the correspondence address for the above-identified application to:

☒ The address associated with
Customer Number:

35807

OR

<input type="checkbox"/> Firm or Individual Name				
Address				
Address				
City		State		Zip
Country				
Telephone		Fax		

I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record

Name	B. Lynne Parshall		
Signature			
Date	1-5-04	Telephone	760 603-2460

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ *Total of 2 forms are submitted.

This collection of information is required by 37 CFR 1.36. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/95 (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: Isis Pharmaceuticals, Inc.Application No./Patent No.: 09/067,638 Filed/Issue Date: April 28, 1998Entitled: Identification of Genetic Targets for Modulation by Oligonucleotides and generation of Oligonucleotides for Gene Modulation
Isis Pharmaceuticals, Inc. a Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.
The extent (by percentage) of its ownership interest is _____ %
in the patent application/patent identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 010072, Frame 0689, or for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
2. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
3. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.
[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

1-5-04


Date

760 603-2460

Telephone number

B. Lynne Parrhall

Typed or printed name



Signature

Executive Vice President & CFO

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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SEPTEMBER 07, 1999

PTAS

WOODCOCK WASHBURN KURTZ MACKIEWICZ &
NORRIS, LLP, PAUL K. LEGAARD
ONE LIBERTY PLACE - 46TH FLOOR
1650 MARKET STREET
PHILADELPHIA, PENNSYLVANIA 19103-7301



COPY

UNITED STATES PATENT AND TRADEMARK OFFICE
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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 07/06/1999

REEL/FRAME: 010072/0689
NUMBER OF PAGES: 13

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

COWSERT, LEX M.

DOC DATE: 05/26/1999

ASSIGNOR:

BAKER, BRENDA F.

DOC DATE: 05/20/1999

ASSIGNOR:

MCNEIL, JOHN

DOC DATE: 06/02/1999

ASSIGNOR:

FREIER, SUSAN M.

DOC DATE: 06/09/1999

ASSIGNOR:

SASMOR, HENRI M.

DOC DATE: 06/11/1999

ASSIGNOR:

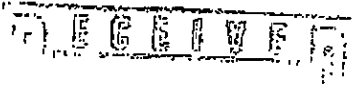
BROOKS, DOUGLAS G.

DOC DATE: 06/03/1999

ASSIGNOR:

OHASHI, CARA

DOC DATE: 05/05/1999



OK
11/18/99

010072/0689 PAGE 2

ASSIGNOR:
WYATT, JACQUELINE R.

DOC DATE: 05/24/1999

ASSIGNOR:
BORCHERS, ALEXANDER H.

DOC DATE: 05/20/1999

ASSIGNOR:
VICKERS, TIMOTHY A.

DOC DATE: 05/27/1999

ASSIGNEE:
ISIS PHARMACEUTICALS, INC.
2292 FARADAY AVENUE
CARLSBAD, CALIFORNIA 92008

SERIAL NUMBER: 09067638
PATENT NUMBER:

FILING DATE: 04/28/1998
ISSUE DATE:

MAURICE CARTER, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

01/12/2004 14:30 FAX 760 603 3820

PATENTS

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FORM PTO-1595
1-31-92

07-09-1999



U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

To The Honorable Commissioner of Patents
thereof.

101087006

ie attached original documents or copy

1. Name of conveying party(ies):
Lex M. Cowser; Brenda F. Baker; John McNeil;
Susan M. Freier; Henri M. Sasnor; Douglas G.
Brooks; Cara Ohashi; Jacqueline R. Wyatt; Alexander
H. Borchers; and Timothy A. Vickers

Additional name(s) of conveying party(ies)
attached? () YES (X) NO

3. Nature of Conveyance:
(X) Assignment () Merger
() Security Agreement
() Change of Name
() Other:

Execution Date(s): May 26, 1999; May 20, 1999; June
2, 1999; June 9, 1999; June 11, 1999; June 3, 1999;
May 5, 1999; May 24, 1999; May 20, 1999; and May
27, 1999

2. Name and address of receiving party(ies)

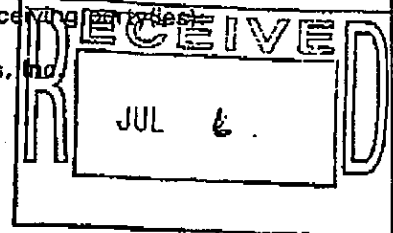
Name: ISIS Pharmaceuticals, Inc.

Street Address:
2292 Faraday Avenue

City: Carlsbad

State California ZIP 92008

Additional name(s) & address attached? () YES (X) NO



4. Application number(s) or patent number(s): 09/067,638
If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? () YES (X) NO

5. Name and address of party to whom correspondence
concerning documents should be mailed:

Name: Paul K. Legaard
Internal Address: WOODCOCK WASHBURN KURTZ
MACKIEWICZ & NORRIS LLP
One Liberty Place - 46th Floor
Philadelphia, Pennsylvania 19103-7301

Street Address: WOODCOCK WASHBURN KURTZ
MACKIEWICZ & NORRIS LLP
One Liberty Place - 46th Floor
1650 Market Street
Philadelphia, Pennsylvania 19103-7301

6. Total number of applications and patents involved:
One

7. Total fee (37 CFR 3.41):.....\$40.00
(X) Enclosed
() Authorized to be charged to Deposit Account
Number 23-3050

8. Please charge any deficiency or credit any
overpayment to Deposit Account Number 23-3050

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Paul K. Legaard 38,534
Name of Person Signing/Reg. No.

Signature

June 29, 1999
Date

Total number of pages including cover sheet, attachments, and document: 14

Mail documents to be recorded with required cover sheet information to:

07/08/1999 MTH:11 00000155 09067638

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Washington, D.C. 20231

DOCKET NO.: ISIS-2960

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ASSIGNMENT

WHEREAS, We, Lex M. Cowser, of Carlsbad, California; Brenda F. Baker of Carlsbad, California; John McNeil of La Jolla, California; Susan M. Freier of San Diego, California; Henri M. Sasnor of ^{Oceanside, CA} Encinitas, California; Douglas G. Brooks of ^{SAN} Marcos, California; Cara Ohashi of San Francisco, California; Jacqueline R. Wyatt of Encinitas, California; Alexander H. Borchers of Encinitas, California and Timothy A. Vickers of Oceanside, California, have invented a certain invention entitled **IDENTIFICATION OF GENETIC TARGETS FOR MODULATION BY OLIGONUCLEOTIDES AND GENERATION OF OLIGONUCLEOTIDES FOR GENE MODULATION**, for which we have made application for Letters Patent of the United States, said application having been filed April 18, 1998 and assigned Application No. 09/067,638; and

WHEREAS, ISIS Pharmaceuticals, Inc. hereinafter referred to as the assignee, of 2292 Faraday Avenue, Carlsbad CA, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign

ASSIGNMENT - PAGE 1 OF 12

DOCKET NO.: ISIS-2960

PATENT

to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

ASSIGNMENT - PAGE 2 OF 12

Apr-27-99 09:28

From: WOODCOCK WASHBURN 23

+

T-081 P.05/18 F-867

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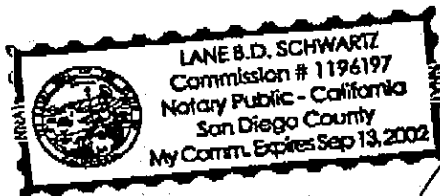
PATENT

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 5/26 1999
Lex M. Cowser

State of California)
) ss.
County of San Diego)

On this 26th day of May, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Lex M. Cowser) personally known to me/proved ~~to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.


Signature of Notary

ASSIGNMENT - PAGE 3 OF 12

Apr-27-99 09:28

From-WOODCOCK WASHBURN 33

T-081 P.06/18 F-867

DOCKET NO.: ISIS-2960

PATENT

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: May 20, 1999B. F. Baker
(Brenda F. Baker)

State of California)

ss.

County of San Diego)

On this 20th day of May, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Brenda F. Baker) personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that ~~he~~ she executed the same in ~~his~~ her authorized capacity, and that by ~~his~~ her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

Lane B.D. Schwartz
Signature of Notary

ASSIGNMENT - PAGE 4 OF 12

DOCKET NO.: ISIS-2960

PATENT

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 6/2/99, 1999(John McNeil)

State of California)

ss.

County of San Diego)

On this 2nd day of June, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (John McNeil) personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

(Signature)
Signature of Notary

ASSIGNMENT - PAGE 5 OF 12

DOCKET NO.: ISIS-2960

PATENT

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 9 June, 1999

Susan M. Freier
(Susan M. Freier)

State of California)

ss.

County of San Diego)

On this 9th day of June, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Susan M. Freier) personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.



Lane B.D. Schwartz
Signature of Notary

ASSIGNMENT - PAGE 6 OF 12

DOCKET NO.: ISIS-2960

PATENT

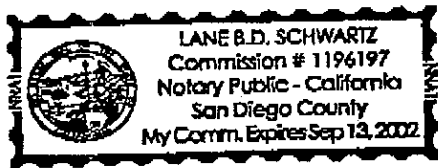
IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 6-11-99, 1999

Henri Sasmor
(Henri M. Sasmor)

State of California)
) ss.
County of San Diego)

On this 11th day of June, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Henri M. Sastmor) personally known to me/~~proved to me on the basis of satisfactory evidence~~ to be the person who subscribed the foregoing Assignment and acknowledged to me that ~~he~~ she executed the same in ~~his~~ her authorized capacity, and that by ~~his~~ her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

Signature of Notary

ASSIGNMENT - PAGE 7 OF 12

DOCKET NO.: ISIS-2960

PATENT

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 6/3/99, 1999

Douglas G. Brooks
(Douglas G. Brooks)

State of California)
)
County of San Diego) ss.

On this 3rd day of June, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Douglas G. Brooks) personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

Signature of Notary

ASSIGNMENT - PAGE 8 OF 12

DOCKET NO.: ISIS-2960

PATENT

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

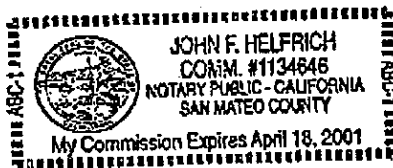
Dated: May 5, 1999

Cara Ohashi
(Cara Ohashi)

State of California)
SAN MATEO) ss.
County of ~~San Diego~~)

On this 5th day of MAY, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Cara Ohashi) personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.



John F. Helfrich
Signature of Notary

ASSIGNMENT - PAGE 9 OF 12

Apr-27-99 09:30

From-WOODCOCK WASHBURN 33

T-081 P.12/18 F-887

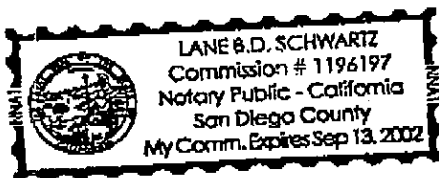
DOCKET NO.: ISIS-2960

PATENT

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 5/24/99 1999Jacqueline R. Wyatt
(Jacqueline R. Wyatt)State of California)
) ss.
County of San Diego)

On this 24th day of May, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Jacqueline R. Wyatt) personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

[Signature]
Signature of Notary

ASSIGNMENT - PAGE 10 OF 12

DOCKET NO.: ISIS-2960

PATENT

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 5/20/89, 1999


Alexander H. Borchers
(Alexander H. Borchers)

State of California)
) ss.
County of San Diego)

On this 20th day of May, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Alexander H. Borchers) personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.


Signature of Notary

ASSIGNMENT - PAGE 11 OF 12

Apr-27-99 09:30

From-WOODCOCK WASHBURN 33

T-081 P.14/18 F-887

DOCKET NO.: ISIS-2960

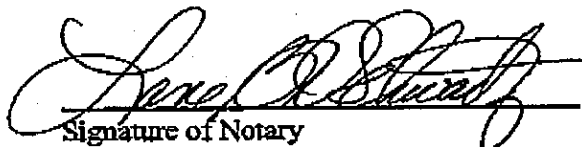
PATENT

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 5/27/99 1999
(Timothy A. Vickers)State of California)
) ss.
County of San Diego)

On this 27th day of May, 1999, before me, the undersigned, a Notary Public for the state, personally appeared (Timothy A. Vickers) personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment, the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.


Signature of Notary

ASSIGNMENT - PAGE 12 OF 12